NOTEWORTHY ADDITIONS TO THE MYCOLOGICAL HERBARIUM

Four Interesting Species of Moulds

In the study of moulds at the New York Botanical Garden during the month of July, 1909, the following interesting species were found and placed in the herbarium.

Mucor rufescens Fischer. This species was found in considerable quantity on elephant's dung. It is very distinct and easily recognized by the flaccid sporangiophores forming a network over the substratum, and by the orange-colored substance in the columella and upper part of the sporangiophore.

Mucor circinelloides van Tieghem. This species is very variable in its mode of branching, but the circinellate branches are usually evident. It was cultivated on bread.

Pilobolus longipes van Tieghem. The elongated, worm-like swelling at the base of the sporangiophore is very characteristic of this species. Found on horse dung.

Circinella umbellata van Tieghem & Le Monnier. This beautiful species is generally found with *Thamnidium elegans* Link. It was collected on dung of jaguar.

David R. Sumstine.

A New Boletus from Tropical America

Boleti are exceedingly scarce in tropical America, and, indeed, in all tropical countries. This is true also of certain genera of large, fleshy agarics, such as *Russula* and *Lactaria.* The extremes of moisture and dryness may be too great for these plants, which are essentially terrestrial, as opposed to many tropical forms of agarics that occur on dead wood; they may lack the association and substratum connected with certain trees of temperate regions, such as oaks and chestnuts; they may have been partially or totally cut off from these regions by certain barriers in the course of geographical distribution; or they may be temperate

species, unadapted to tropical conditions generally, as is the case with many of our common higher plants.

The first boletus reported from tropical America was collected by Oersted in volcanic soil on the Irasi volcano, Costa Rica, and described by Fries in 1851 as *Boletus robustus*. In 1868, two species, *B. cubensis* and *B. lignatilis,* were described by Berkeley from the collections of Wright in Cuba. In 1900, Patouillard described *B. guadalupensis* from specimens collected by Père Duss in Guadeloupe. During the past winter I found *Rostkovites granulatus* quite common at Cinchona, Jamaica; and two collections of *Ceriomyces communis* have recently been sent in from the Bahamas. A new species, collected in Costa Rica by Mr. Maxon, may be characterized as follows:

Ceriomyces Maxoni sp. nov.

Pileus irregularly circular in outline, convex, slightly depressed, 7 cm. broad, 1–1.5 cm. thick; surface glabrous, smooth, very dark brown, almost black near the margin, slightly lighter at the center with dark blotches, margin undulate, involute: context very fleshy; hymenium strongly concave, pure creamy white, tubes adnate, rather short, small, angular, thin-walled, edges becoming lacerate: spores oblong-ellipsoid, smooth, hyaline, 2-guttulate, 9–11 × 3–4 μ: stipe central, thick, tapering downward, 2.5 cm. long, 3 cm. thick at the apex, 1.5 cm. thick at the base, smooth and glabrous below, closely and conspicuously reticulate above, fleshy, solid.

Type collected near Coliblanco, on the slopes of the volcano Turrialba, Costa Rica, at approximately 2,000 meters, among mosses on a rotten log in a clearing in the forest, May 1, 1906, *W. R. Maxon 301.*

W. A. MURRILL.